AMSAT News Service Weekly Bulletins
Issue: ANS-120
Date: 2017-04-30
Sources: amsat-ans-2017-ans-120-weekly-hyperkitty-8013ef8b61.txt

---

AMSAT NEWS SERVICE
ANS-120

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

* RadFxSat(Fox-1B) Passes Mission Readiness Review
* AMSAT at the Dayton Hamvention -- Call for volunteers
* HamRadioNow: Look! Up in the Sky!
* AMSAT-UK test ESEO payload command uplink
* ARSATC Satellite Special Events Station From Brazil
* ISS Commander Peggy Whitson, ex-KC5ZTD, Sets New US Record for Time in Space
* AMSAT Events
* ARISS News
* Satellite Shorts from All Over

SB SAT @ AMSAT $ANS-120.01
ANS-120 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 120.01
 >From AMSAT HQ KENSINGTON, MD.
DATE April 30, 2017
To All RADIO AMATEURS
BID: $ANS-120.01

---

## RadFxSat(Fox-1B) Passes Mission Readiness Review

The RadFxSat (Fox-1B) Mission Readiness Review was held Saturday morning, April 29th, at the Cal Poly campus in front of a board representing
Tyvak, Cal Poly, and NASA.
The purpose of the review is to verify that all requirements are met for a safe and successful launch and deployment. I presented 81 powerpoint slides covering all of the ICD (Interface Control Document) requirements, mission, operations, and deorbit.
At the conclusion of the presentation including questions answers, the panel
unanimously approved RadFxSat as ready for flight.  The next milestone will be integration into the P-POD with launch scheduled NET (No Earlier than) September 23, 2017 aboard a Delta II at Vandenberg AFB.

[ANS thanks Jerry Buxton, N0JY, AMSAT Vice-President Engineering
for the above information]

---

AMSAT at the Dayton Hamvention -- Call for volunteers

The Dayton Hamvention is less than three weeks away!

It is time to be creating your shopping list and making your travel plans.

Last year, we had 45 people assist with the AMSAT booth at Dayton. We've had a good response so far to our call for volunteers, but we could really use another 10-15 people.

The 2017 Hamvention is May 19-21 in Xenia, Ohio. Would you consider helping AMSAT at the Hamvention this year?

The interaction with AMSAT members, satellite operators, designers, and builders makes the whole experience a lot of fun. Meet or renew acquaintances, exchange operating tips, and find out what antennas, software and equipment other AMSAT members use. We currently expect most of the AMSAT senior officers and board members to be there too.

If you're an experienced operator, great! We can use you and your experience.

If you've never operated a satellite before, but want to learn more, that's OK. We can use your help too.

Whether you're available for only a couple of hours or if you can spend the entire weekend with us, your help would be greatly appreciated.

Please send an e-mail to Steve, n9ip(a)amsat.org if you can help. Thank you!

[ANS thanks Steve Belter, N9IP, Hamvention 2017 Team Leader
for the above information]

---

HamRadioNow: Look! Up in the Sky!

The bulk of this episode is an on-location interview with two Raleigh NC area hams who gave a couple of live demonstrations of operating through satellites at the Raleigh Hamfest, April 15, 2017.

There’s some banter between hosts David Goldenberg W0DHG and Gary Pearce KN4AQ back in the studio. And toward the end Gary announces a Viewer Challenge that we’ll detail down below.

The satellite hams are John Brier KG4AKV and Tucker McGuire W4FS. At 18 years old, Tucker is a relatively new ham who first started operating satellites
last summer, and quickly jumped into the deep end. John’s been around longer, but ham radio satellites and space operation captured his focus,

too.
He produces videos about it on his YouTube channel, Space Comms.

Gary talked to John and Tucker after they completed their second demo,
and he edited a little of each demo into the interview.

There’s video of all of both demonstrations on YouTube. John shot himself
operating through ‘Saudi-Sat’ SO-50, a “Mode J” FM crossband repeater
(145.850 MHz uplink and 436.795 MHz downlink). John used three cameras
(including a GoPro on a headband for a unique view). Gary edited the video
and put it on the HamRadioNow YouTube channel as an extra bit if video.

Gary added two more cameras to the mix to shoot Tucker operating through
FO-29, a Japanese satellite that uses a 100 kHz wide ‘linear
transponder’ for
mostly SSB and CW (and NO FM, please) between two meters and 70 cm.
There’s a few minutes of that demo in this episode, and the whole thing is
on John’s Space Comms channel.

Watch HRN 316: Look! Up in the Sky! Ham Radio Now
https://www.youtube.com/watch?v=sKZ73sRdAAw

Space Comms
http://youtube.com/SpaceComms1

KG4AKV’s SO-50 FM operation
https://www.youtube.com/watch?v=7dhJsfh6fYA

W4FS’s FO-29 SSB operation
https://www.youtube.com/watch?v=kEvsKN9ZSyw

John KG4AKV
https://twitter.com/johnbrier

Tucker W4FS
https://twitter.com/Whiskey4FoSho

[ANS thanks AMSAT-UK and HamRadio Now for the above information]

---

AMSAT-UK test ESEO payload command uplink

AMSAT-UK are providing an amateur radio 1260/145 MHz FM transponder
and a 145 MHz BPSK telemetry beacon for the European Student Earth
Orbiter (ESEO) satellite.

Over the weekend of April 22-23, 2017, AMSAT-UK members met at the
Surrey Space Center to conduct some final testing of the command uplink
on the Engineering Model of their payload which will launch on the European
Space Agency ESEO mission.

The payload, which will transmit 1k2 and 4k8 BPSK telemetry on
145.895 MHz, was set up in the Arthur C Clarke building, with the
AMSAT-UK team sending commands on L-band (1260 MHz) from some
distance away in the university grounds.  A large string of attenuators
simulated the path loss to low Earth orbit, while the VHF telemetry
confirmed
the level of signal received at the ‘spacecraft antenna’ and that the
commands

had been executed correctly.

With the lab and range testing declared a success, work now begins on constructing the Flight Model hardware. This is due for delivery by the middle of
the summer so that it can be integrated into the 50 kg microsat. ESEO is expected to be launched late this year or in the first quarter of 2018.

ESEO satellite
https://amsat-uk.org/satellites/communications/eseo/

[ANS thanks AMSAT-UK for the above information]

---

ARSATC Satellite Special Events Station From Brazil

In celebration of its two-year anniversary, the ARSATC group will activate the ZV8AR, ZZ3SA, and ZZ9TC stations.

Radio amateurs from Brazil and other countries who confirm contact with ARSATC special stations, in which the suffixes of each special call will form the word ARSATC, will be entitled to a commemorative certificate alluding to the event.

Between May 1 and 30, 2017, the special calls will be activated on the SO-50, AO-85, FO-29, AO-73, AO-7 and Lapan -02 satellites.

The confirmation will be through the Eqsl, Lotw or QRZ and sent to the email:
qsl(a)arsatc.org

Prepare your antennas for good contacts.

http://arsatc.org/ (in Portuguese, use google translate)

[ANS thanks Valdir Lima and arsatc.org for the above information]

---

ISS Commander Peggy Whitson, ex-KC5ZTD, Sets New US Record for Time in Space

Current International Space Station (ISS) Commander Peggy Whitson, ex-KC5ZTD, this week broke the record for cumulative time spent in space by a US astronaut. President Donald Trump -- with daughter Ivanka Trump and astronaut Kate Rubins, KG5FYJ, joining him in the Oval Office -- called Whitson on April 24 to congratulate her on her accomplishment. With Whitson for the call on board the ISS was astronaut Jack Fischer, KG5FYH, who arrived
on April 20 for his first mission aboard ISS.

"Peggy is a phenomenal role model for young women, and all Americans, who are exploring or participating in STEM education programs and careers," President Trump said. "When I signed the INSPIRE Women Act in February, I did

so to ensure more women have access to STEM education and careers, and to ensure America continues to benefit from the contributions of trailblazers like
Peggy."

Whitson tweeted back, "Thank you, Mr. President, for the great opportunity to
highlight the research we are doing up here aboard the space station and beyond!"

Last November, Whitson, 57, launched to the ISS on her current mission, with
377 days in space already under her belt, and broke the 534 cumulative-day record in space held by Jeff Williams, KD5TVQ. Whitson became the first woman
to command the space station in 2008, and on April 9, she became the first woman to command it twice. She also holds the record for most spacewalks by a female astronaut.

"This is an inspirational record Peggy is setting today, and she would be the
first to tell you this is a record that's absolutely made to be broken as we
advance our knowledge and existence as both Americans and humans," said NASA acting Administrator Robert Lightfoot.

This is Whitson's third long-duration stay on board the space station, and her mission was recently extended for another 3 months. Instead of returning to Earth in June as originally planned, Whitson will remain on the
ISS until September, returning home with Fischer and Russian cosmonaut Fyodor Yurchikhin, RN3FI.

Whitson first served aboard the ISS in 2002 as part of the Expedition 5 crew,
was the Expedition 16 commander some 5 years later, and has conducted numerous Amateur Radio on the International Space Station (ARISS) contacts with students on Earth.
Whitson has since let her Amateur Radio license lapse.

[ANS thanks the ARRL and NASA for the above information]

---

AMSAT Events

Information about AMSAT activities at other important events around the country. Examples of these events are radio club meetings where AMSAT Area Coordinators give presentations, demonstrations of working amateur satellites, and hamfests with an AMSAT presence (a table with AMSAT literature and merchandise, sometimes also with presentations, forums, and/or demonstrations).

*Saturday, 6 May 2017 – Cochise Amateur Radio Association hamfest in Sierra Vista AZ

*Saturday, 6 May 2017 – Matanuska Amateur Radio Association hamfest in Wasilla AK

*19-21 May 2017, HamVention in the Greene County Fairgrounds and

Expo Center, Dayton, Ohio

*Friday and Saturday, 9-10 June 2017, HAM-COM in Irving TX

*Saturday, 10 June 2017 – Prescott Hamfest in Prescott AZ

*Tuesday, 20 June 2017 – presentation for Superstition Amateur Radio Club
in Mesa AZ

[ANS thanks AMSAT-NA for the above information]

---

ARISS News

Successful Contacts

*  A direct contact via SX2ISS with 14th Elementary School
Katerini, Greece
The ISS callsign was scheduled to be RSØISS
The scheduled  astronaut wais Fyodor Yurchikhin RN3FI
Contact was successful: Sat 2017-04-29  12:02:10 UTC 69 deg

*  A direct contact with Orel, Russia
The ISS callsign was scheduled to be RSØISS
The scheduled astronaut was Oleg  Novitskiy
Contact was successful: Sat 2017-04-29 06:05 UTC

*  Lycée Hélène Boucher, Thionville, France, direct via  F8KGY
The ISS callsign was scheduled to be FXØISS
The scheduled  astronaut was Thomas Pesquet KG5FYG
Contact was successful: Thu 2017-04-27  08:52:17 UTC 83 deg

*  A direct contact via W6SRJ with students at Brook Haven School in
Sebastipol, CA, USA was successful Wed 2017-04-19  18:40:43 UTC 82 deg.
Astronaut Thomas Pesquet, KG5FYG, answered 19 prepared questions
for students.

Video of Contact:
https://www.youtube.com/watch?v=lOY45DnmT8M

*  A direct contact via F6KCO with students from College Roger Martin
Du Gard, Bellême, France was successful Fri 2017-04-14 15:20:44 UTC
Students in grades 7-10 took part in an ARISS contact with Thomas Pesquet
who answered 20 questions from the physics class. An audience of 200
watched. Academic regional representatives were also present.

Video of Contact (In French):
https://www.youtube.com/watch?v=FuY0bE8unU8&feature=em-upload_owner

**********

ARISS  is always glad to receive listener reports for the above
contacts.  ARISS
thanks everyone in advance for their assistance.  Feel free to send
your  reports
to aj9n(a)amsat.org or aj9n(a)aol.com.

Listen for the ISS on  the downlink of 145.8Ø  MHz.

**********

Several of you have sent me emails asking about the RAC ARISS website and not
being able to get in. That has now been changed to
http://www.ariss.org/

Note that there are links to other ARISS websites from this site.

**********

Looking for something new to do? How about receiving DATV from the ISS?

If interested, then please go to the ARISS-EU website for complete
details. Look for the buttons indicating Ham Video.

http://www.ariss-eu.org/

If you need some assistance, ARISS mentor Kerry N6IZW, might be able to
provide some insight. Contact Kerry at kbanke(a)sbcglobal.net
**********

ARISS congratulations the following mentors who have now mentored over
100 schools:

Satoshi 7M3TJZ with 123
Gaston ON4WF with 123
Francesco IKØWGF with 119

**********

The webpages listed below were all reviewed for accuracy. Out of date
webpages were removed and new ones have been added. If there are
additional ARISS websites I need to know about, please let me know.

Note, all times are approximate. It is recommended that you do your own
orbital prediction or start listening about 10 minutes before the
listed time.
All dates and times listed follow International Standard ISO 8601 date and
time format YYYY-MM-DD HH:MM:SS

The complete schedule page has been updated as of 2017-04-06 07:00 UTC.

Here you will find a listing of all scheduled school contacts, and
questions, other ISS related websites, IRLP and Echolink websites, and
instructions for any contact that may be streamed live.

http://www.amsat.org/amsat/ariss/news/arissnews.rtf
http://www.amsat.org/amsat/ariss/news/arissnews.txt

Total number of ARISS ISS to earth school events is 1129.
Each school counts as 1 event.
Total number of ARISS ISS to earth school contacts is 1090.
Each contact may have multiple schools sharing the same time slot.
Total number of ARISS supported terrestrial contacts is 47.

A complete year by year breakdown of the contacts may be found in the
file.
http://www.amsat.org/amsat/ariss/news/arissnews.rtf

Please feel free to contact me if more detailed statistics are needed.

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

The  following US states and entities have never had an ARISS contact:
Arkansas, Delaware, South Dakota, Wyoming, American Samoa, Guam, Northern
Marianas Islands, and the Virgin Islands.

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

QSL  information may be found at:
http://www.ariss.org/qsl-cards.html

ISS callsigns:  DPØISS, IRØISS, NA1SS, OR4ISS,  RSØISS

**********************************************************************

The  successful school list has been updated as of 2017-04-04 06:00 UTC.

http://www.amsat.org/amsat/ariss/news/Successful_ARISS_schools.rtf

Frequency  chart for packet, voice, and crossband repeater modes showing
Doppler  correction as of 2005-07-29 04:00  UTC
http://www.amsat.org/amsat/ariss/news/ISS_frequencies_and_Doppler_correction.rtf

Listing of ARISS related magazine articles as of 2006-07-10 03:30 UTC.
http://www.amsat.org/amsat/ariss/news/ARISS_magazine_articles.rtf

Check out the Zoho reports of the ARISS contacts

https://reports.zoho.com/ZDBDataSheetView.cc?DBID=412218000000020415
**********************************************************************

Exp. 50 on orbit
Peggy Whitson
Thomas Pesquet  KG5FYG
Oleg Novitskiy

Exp.  51 on orbit
Fyodor Yurchikhin
Jack Fisher, K2FSH

**********************************************************************

Watch
http://www.ariss.org/upcoming-contacts.html
for information about upcoming contacts as they are scheduled.

[ANS thanks ARISS and Charlie, AJ9N for the above information]

---

Satellite Shorts from All Over

Saint Barts satellite operation

AI5P, N0KV, W0ZA and WD0E plan to operate from Pointe Milou, St.
Barthelemy Island (IOTA NA-146/Grid Square FK87) from October 17 - 26.
Operation will be on 80-10 meters (SSB/CW/RTTY) with satellite operation
by WD0E. Conditions may largely limit most activity to 20 meters and down.
Operating 160 meters is being considered; however, no antenna option is yet
finalized.

Satellite operation will take place on several satellites. A satellite and pass schedule will be announced on the AMSAT-bb in advance.

Equipment includes three Elecraft K3's and two 500 watt Elecraft amps. Antennas include a SteppIR crank IR vertical for 80-10 meters, a folding hexbeam by Folding Antennas (Germany) on 20-10 meters, LPDA's on 20 and 17 meters and verticals on 30 and 40 meters.

Operation will be as continuous as conditions warrant. The Colorado operators have decided to use FJ/N0KV as their callsign while AI5P will be active as FJ/AI5P.

FJ/N0KV logs will be updated to LOTW while Rick's logs (FJ/AI5P) will not since he continues to be an analog guy with an actual key and pen/paper log. Paper QSLs will be available from both N0KV and AI5P direct and via the bureau. US addressees send SASE; addressees outside the US should send SAE plus $2 for return postage.
Use of Club Log is not anticipated.

Further information will be published as the trip approaches.

[ANS thanks Jim White, WD0E for the above information]

---

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org